

ABSTRACT OF THE DISCLOSURE

A cell search determination circuit is provided which is capable of reducing misdetections in the identification of a scramble code number. A mobile station in W-CDMA cellular communications confirms a scramble code identified by cell search. The cell search determination circuit includes a first finger 502 for performing correlation operation of the scramble code and a receiving signal, a second finger 501 for performing correlation operation of a first synchronous channel code and the receiving signal, an averager 503 for generating a phase vector in which noise components of an output from the first finger 502 are suppressed, a first power adder for determining and integrating a power of the first finger 502, a second power adder for determining and integrating a power of the second finger 501, a first threshold determiner 514 for outputting a threshold value corresponding to an output from the first power adder, and a comparator 515 for performing a threshold determination of an output from the second power addition means using the threshold value.

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